

[1] **United States Design Patent**
Howard

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[3] Date of Patent: 2/2/20

[4] Title: Play your heart out

[5] Inventor: Ann Howard

[6] Field of Invention: These instruments relate to the general field of music, while also incorporating breakthroughs in biofeedback technology which in real time allows performers to see how certain thoughts can generate affective feelings and take the form of melodies. In this way, these inventions hope to lend itself useful to larger fields in therapy and psychiatry to see how music can be more readily harnessed as another form of healing and reflection.

[5] Summary: The idea around these instruments, is the notion that music is a healing power. We all know this intuitively, but this mechanism hopes to actually help to harness that power to construct melodies and songs that tap into our core. Through the power of music, the larger aim of this study and instruments is to increase empathy and try to connect people of different beliefs to try and reach the core of human sentiments and feelings in an increasingly divisive world. This technology further relates to studies and newfound focus on how affect is produced and how it works to shape space, but looks more concretely at the ways that this space is constructed and created. These instruments also measures the flow state that artists access when composing, in the hopes of not only creating songs that feel raw and tap into our core and human experience, but which in future experiments hope to recreate this kind of affective feeling and vulnerable access point as a form of healing and therapy, letting those feelings course through you.

[6] Drawing Descriptions:

Fig 1. Illustrates a harp like instrument which attaches to the forehead as one plays. Reading the brain waves and electrical signals, the player gets feedback which not only enables the artist to write music which taps into core feelings and emotions, but which also provides tangible data on how the player themselves is affected by the instrument, measuring the flow state and the types of melodies which have the most profound impacts.

Fig 2. Illustrates an instrument performed entirely using heartbeats, as each variation in rhythm corresponds to a different note. In this way, performance is entirely bodily and while prompted on certain subjects to reflect upon the subject produces melodies in line with their hearts.

Fig. 3 Illustrates a circular xylophone-type instrument, which is also strapped to the players arm measuring their blood pressure. Designed with stress relief in mind, this instrument also tracks motion and how the act of playing the instrument itself can have profoundly healing effects and propoerties.